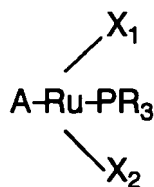


AMENDMENTS TO THE CLAIMS

1. (**Currently Amended**) ~~A polymer-supported~~An arene-ruthenium complex wherein the complex is represented by the following formula:



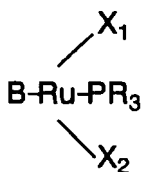
wherein A represents an organic polymer with a side chain comprising an aromatic ring coordinated to Ru, X₁ and X₂ represent the same or different halogen atoms, and R₃ represents a hydrocarbon group that may have a substituent.

2. (**Currently Amended**) The ~~polymer-supported~~ arene-ruthenium complex of claim 1, wherein the hydrocarbon group is an alicyclic hydrocarbon group or an aromatic hydrocarbon group.

3. (**Currently Amended**) The ~~polymer-supported~~ arene-ruthenium complex of claim 1, wherein the aromatic ring of the side chain is a benzene ring.

4. (**Currently Amended**) The ~~polymer-supported~~ arene-ruthenium complex of claim 1, wherein the organic polymer is a polystyrene.

5. (**Currently Amended**) A method for producing the ~~polymer-supported~~ arene-ruthenium complex of claim 1, comprising a ligand exchange of a complex monomer represented by the following formula:



wherein B represents an aromatic compound comprising an aromatic ring coordinated to Ru, and X₁, X₂ and R₃ are as defined above, with an organic polymer A with a side chain comprising an aromatic ring.

6. **(Currently Amended)** ~~A polymer-supported~~ An arene-ruthenium catalyst for an organic synthesis reaction, comprising the ~~polymer-supported~~ arene-ruthenium complex of claim 1 as an active component.
7. **(Currently Amended)** The ~~polymer-supported~~ arene-ruthenium catalyst of claim 6, wherein the catalyst is prepared by mixing the complex with a phosphine compound.
8. **(Currently Amended)** The ~~polymer-supported~~ arene-ruthenium catalyst of claim 7, wherein the catalyst is prepared by being mixed with MPF_6 , in which M represents a monovalent cation.
9. **(Currently Amended)** The ~~polymer-supported~~ arene-ruthenium catalyst of claim 8, wherein the catalyst is prepared by being mixed with an alkynyl alcohol compound.
10. **(Withdrawn)** A method of an organic synthesis reaction, wherein a ring-closing metathesis reaction of an olefin compound is carried out in the presence of the catalyst of claim 6.
11. **(Withdrawn)** A method of an organic synthesis reaction, wherein reduction of a carbonyl group is carried out in the presence of the catalyst of claim 6, to synthesize an alcohol compound.
12. **(Withdrawn)** A method of an organic synthesis reaction, wherein a reaction comprising carbon-carbon addition of an acetylene group is carried out in the presence of the catalyst of claim 6.